

Grid No. 2 Voltage	150 Volts
Grid No. 1 Voltage	-22.5 Volts
Plate Current	57 Ma
Grid No. 2 Current	2.1 Ma
Plate Resistance (Approx.)	14,500 Ohms
Transconductance	5900 μ mhos
Triode Amplification Factor ⁽¹⁾	4.3
Grid No. 1 Voltage (Approx.) for $I_b = 1$ Ma	-43 Volts
INSTANTANEOUS PLATE KNEE VALUES	
$E_b = 60$ V, $E_{c2} = 150$ V, and $E_{c1} = 0$ V;	
$I_b = 260$ Ma; and $I_{c2} = 26$ Ma	

NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid-leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
- (3) Triode connection (screen tied to plate) with $E_b = E_{c2} = 150$ Volts and $E_{c1} = -22.5$ Volts.

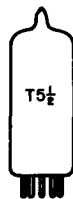
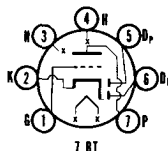
Color Television Type

DETECTOR and AF AMPLIFIER**6AV6**

3AV6, 4AV6, 12AV6

Double Diode and High Mu Triode

Construction	Miniature T-5½
Base	Button 7 Pin, E7-1
Basing	.7BT
Outline	5-2
Maximum Diameter	0.750 In.
Maximum Seated Height	1.875 In.
Maximum Overall Height	2.125 In.

**ELECTRICAL DATA****HEATER OPERATION**

	3AV6	4AV6	12AV6	6AV6
Heater Voltage.....	3.15	4.2	12.6	6.3 Volts
Heater Current	600	450	150	300 Ma
Heater Warm-up Time	11	11	—	— Seconds
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total DC and Peak.....				200 Volts
Heater Positive with Respect to Cathode				
DC				100 Volts
Total DC and Peak.....				200 Volts

DIRECT INTERELECTRODE CAPACITANCES

	Shielded ⁽¹⁾	Unshielded
Triode Grid to Plate.....	2.0	2.0 Pf
Triode Input	2.2	2.2 Pf
Triode Output.....	1.2	0.8 Pf
Grid to Diode No. 2 Plate ⁽²⁾ (Max.)	0.04	0.04 Pf

RATINGS (Design Maximum Rating System)**Triode**

Plate Voltage (Max.)	330 Volts
Plate Dissipation (Max.)	0.55 Watt
Positive Grid Voltage (Max.)	0 Volt

Diode

Diode Plate Current Each Diode	1.0 Ma
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CHARACTERISTICS AND TYPICAL OPERATION**Triode****Class A1 Amplifier**

Plate Voltage	100	250 Volts
Grid Voltage	-1	-2 Volt
Plate Current	0.5	1.2 Ma
Plate Resistance.....	80,000	62,500 Ohms
Transconductance	1250	1600 μ mhos
Amplification Factor	100	100

Diode (Each Section)

Tube Voltage Drop for $I_b = 1.2$ Ma.....	10 Volts
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NOTES:

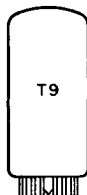
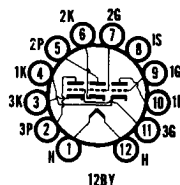
- (1) Shield No. 316 connected to cathode.
- (2) Diode plate No. 2 connects to Pin No. 5. Diode plate No. 1 connects to Pin No. 6.

6AV11

Color Television Type

**AMPLIFIER, PHASE INVERTER
or OSCILLATOR****Triple Medium Mu Triode**

Construction.....Compactron T-9
 Base Button 12 Pin, E12-70
 Basing 12BY
 Outline 9-56
 Maximum Diameter 1.188 In.
 Maximum Seated Height 1.500 In.
 Maximum Overall Height 1.875 In.



6.3 Volts
 600 Ma

ELECTRICAL DATA**HEATER OPERATION**

Heater Voltage.....
 Heater Current.....
 Maximum Heater-Cathode Voltage
 Heater Negative with Respect to Cathode
 Total DC and Peak.....
 Heater Positive with Respect to Cathode
 DC.....
 Total DC and Peak.....

200 Volts

100 Volts

200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

	Section 1	Section 2	Section 3
Grid to Plate (g to p).....	1.2	1.2	1.2 Pf
Input: g to (h + k + IS).....	1.9	1.9	1.9 Pf
Output: p to (h + k + IS).....	1.8	0.7	2.0 Pf

RATINGS (Design Maximum Rating System) (Each Section)

Plate Voltage (Max.).....	330 Volts
Plate Dissipation (Max.).....	2.75 Watts
Total Plate Dissipation (All Plates) (Max.).....	6.0 Watts
DC Cathode Current (Max.).....	20 Ma
Grid Circuit Resistance With Fixed Bias (Max.).....	0.25 Megohm
With Cathode Bias (Max.).....	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION (Each Section)

Plate Voltage.....	100	250 Volts
Grid Voltage.....	0	-8.5 Volts
Amplification Factor.....	20	17
Plate Resistance (Approx.).....	6500	7700 Ohms
Transconductance.....	3100	2200 μ mhos
Plate Current.....	11.8	10.5 Ma
Grid Voltage (Approx.) Ib = 10 μ a.....	—	-24 Volts

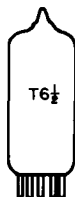
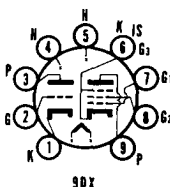
6AW8A

8AW8A

Color Television Type

**SYNC SEPARATOR (T)
VIDEO AMPLIFIER (P)****High Mu Triode and Sharp Cutoff Pentode**

Construction.....Miniature T-6½
 Base Button 9 Pin, E9-1
 Basing 9DX
 Outline 6-3
 Maximum Diameter 0.875 In.
 Maximum Seated Height 2.375 In.
 Maximum Overall Height 2.625 In.

**ELECTRICAL DATA****HEATER OPERATION**

Heater Voltage.....
 Heater Current.....
 Heater Warm-up Time.....
 Maximum Heater-Cathode Voltage
 Heater Negative with Respect to Cathode
 Total DC and Peak.....

8AW8A

8.4

450

11

6AW8A

6.3 Volts

600 Ma

11 Seconds

200 Volts